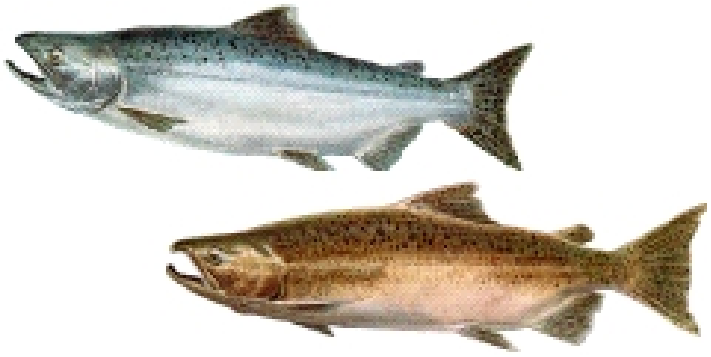
Hatchery Update

Spring Creek National Fish Hatchery



Introduction

The U.S. Fish and Wildlife Service operates 12 National Fish Hatcheries (NFH) and one Salmon Culture Technology Center in the Columbia River basin. The Columbia River Fisheries Program Office (CRFPO) works with these 13 facilities to evaluate release programs and special studies. The CRFPO maintains the Service's hatchery database as well.

About Spring Creek National Fish Hatchery

The hatchery is located on the Columbia River in Underwood, Washington, 167 river miles from the ocean. Spring Creek has raised tule fall chinook salmon since 1901. These fish are native to the White Salmon River, which is only two miles east of the hatchery. The facility has undergone two major reconstructions .

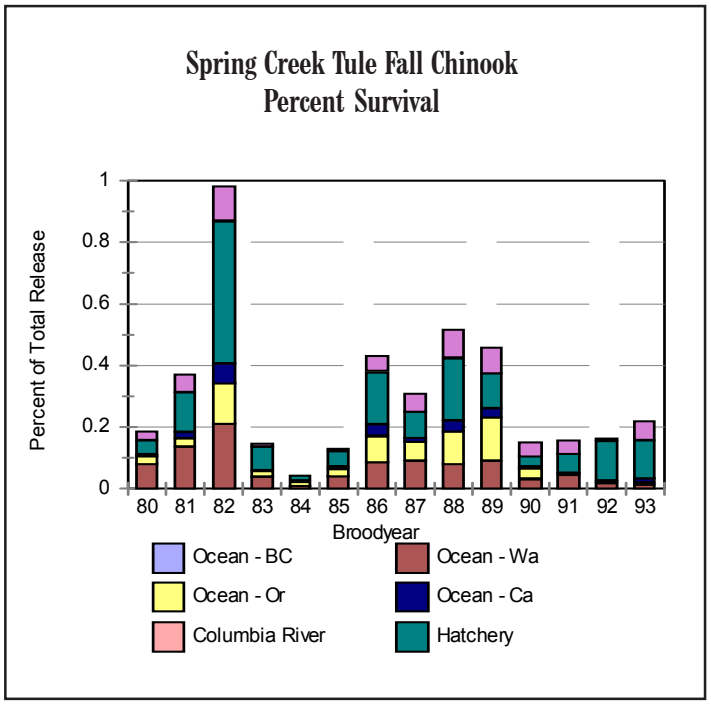
Spring Creek NFH has the capacity to incubate 60 million eggs and rear 15 to 16 million smolts in 44 rearing ponds. Extra fish are released as unfed fry.

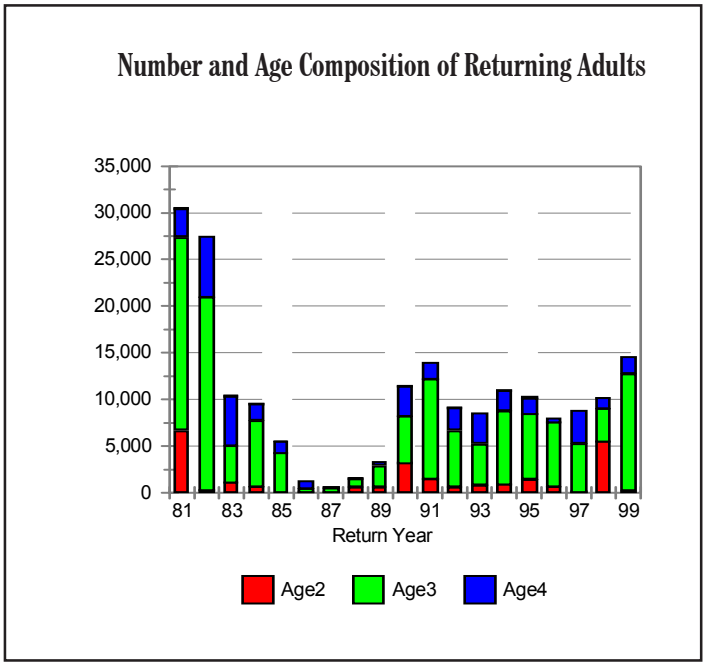
Hatchery Goal

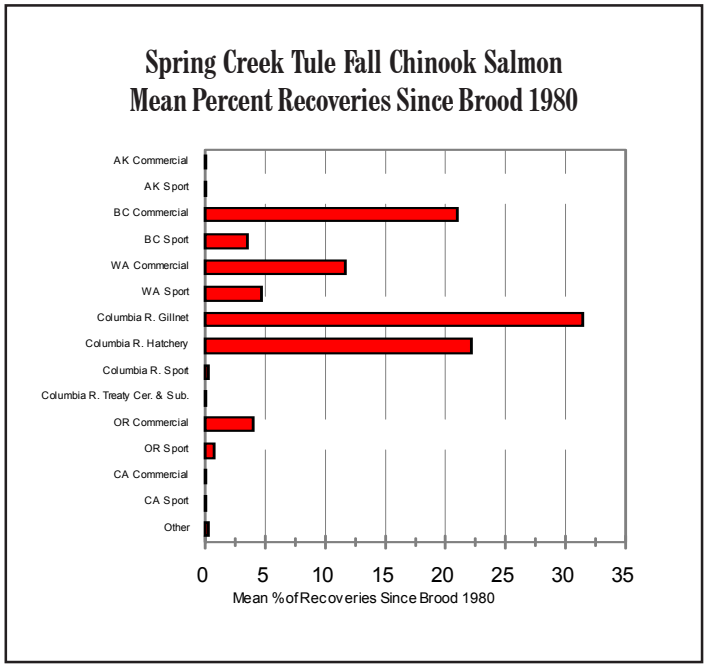
Spring Creek NFH was first established to supplement the commercial harvest. Today the USFWS operates this hatchery to mitigate for lost habitat, provide for commercial and sport harvest, meet tribal treaty and trust responsibilities, and to conserve this unique stock of salmon for future reintroduction to its native habitat. One of Spring Creek's most important goals is to maintain the genetic integrity of this stock to ensure that it will remain unique among all other populations of tule fall chinook and to maximize the potential for success in future reintroduction efforts.

Adult Escapement Goal

A return of 7,000 adult salmon is needed to collect enough eggs for production of 16 million fish.







Sampling of Returning Fish

A proportion of returning adults are sampled at each hatchery. Sex and length are recorded and scales are collected so that age can be determined. By using sample information and the number of returning fish, it is possible to calculate the number of returning fish for each age group and, consequently, the number of fish returning from each brood year or release year. On average, 66% of Spring Creek's adult returns are three year olds, 20% are four year olds, approximately 13% are two year olds, and less than 1% return as five year olds. In 1999, 86% of the returning adults sampled were three years old.

The number of fish returning from a hatchery release is influenced by early rearing at the hatchery, downstream migration, ocean conditions, and the harvest rate in the various fisheries.

Contribution

The marking program has made it possible to determine survival rates and contribution to fisheries. Spring Creek tule fall chinook serve as an index stock for estimating ocean exploitation rates as part of the Pacific Salmon Commission's treaty between Canada and the United States. Information recovered from the 450,000 tules marked each year with coded wire tags provides harvest managers with information about the condition of the tules and other stocks of salmon that migrate in the same area of the Pacific Ocean.

Outlook for the Future

Like wild salmon, the Spring Creek stock is dependent on healthy aquatic habitat and favorable environmental conditions. With an emphasis being placed on habitat protection and restoration, we believe the stock will rebound to its historic numbers.

For more information, please contact:

Stephen Pastor
Columbia River Fisheries Program Office
9317 Highway 99, Suite I, Vancouver, WA 98665
360-696-7605 or email stephen_pastor@fws.gov
www.r1.fws.gov/crfpo

Ed LaMotte, Hatchery Manager
Spring Creek National Fish Hatchery
61552 State Road 14
Underwood, WA 98651
509-493-1730 or email ed_lamotte@fws.gov
www.r1.fws.gov/gorgefish/

CRiS database management provided by Stephen Pastor
Produced by Donna Allard, CRFPO Information and Education